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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/735,400

12/11/2003

W. Daniel Hillis

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EXAMINER

D'AGOSTINO, PAUL ANTHONY

ART UNIT

PAPER NUMBER

3714

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/735,400

Applicant(s)

HILLIS ET AL.

Examiner

Paul A. D'Agostino

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. This acknowledges Applicant's response dated June 14, 2007. Claims 1 and 11 are amended. Claims 1-20 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,404,305 to Stiles et al. (Stiles) in view of U.S. Patent Pub. No. 2002/0072410 to Tanaka et al. (Tanaka).

In Reference to Claims 1 and 11

Stiles discloses a means {method} for reducing control input sets to at least one reduced input set (Fig. 1 wherein pilot and co-pilot control stations' Yaw, Pitch, Roll, and Lift are reduced into one set of Yaw, Pitch, Roll and Lift commands Col. 3 Lines 47-67 and col. 4 Lines 1-17) according to a reduction scheme (Fig. 1 "dual station sidearm control system" 10 and Col. 3 Lines 47-49); wherein each reduced control input set determines the action of an entity (Fig. 1 where signals are combined to determine the

direction of a main and tail rotor); and wherein controllers collectively control at least one entity ("it is possible for one pilot to override the other" Col. 1 Lines 25-26 or "are summed to provide a total system input signal" col. 2 Lines 18-20).

However, stiles fails to teach of a video game controller hub, comprising {method for reducing a plurality of control input sets provided from a corresponding plurality of video game controllers to a video game console by a video game controller hub, comprising the steps of:} means for receiving {receiving} a plurality of control input sets from a corresponding plurality of video game controllers, each of said control input sets comprising a plurality of control inputs; means for providing {providing} said at least one reduced control input set to a video game console; wherein each reduced control input set determines an action of a separate on-screen entity; and wherein said video game controllers collectively control at least one on-screen entity.

Tanaka teaches of a video game ("video game machine" [0002]) controller hub and method (Fig. 3 "port duplicator" 303A; [0063]), comprising {comprising the steps of:} means for receiving (Fig. 3 "connection slots" 304a - 304d; [0065]) a plurality of control input sets (Fig. 3 signals over "cables" 305a - 305d; [0065]) from a corresponding plurality of video game controllers (Fig. 3 "controllers" 20a-20c; [0064]), each of said control input sets comprising a plurality of control inputs ("It is to be noted that the matters controlled by the controller are not limited to game characters ..." [0006]); means for providing said at least one reduced control input set to a video game console (Fig. 12 "monitor device" 100; [0163]); wherein each reduced control input set determines an action of a separate on-screen entity and said video game controllers

collectively control at least one on-screen entity ("For a game to be enjoyed by a plurality of players through such individual operations of the controllers, it is necessary that correlation between the individual game characters appear on a television monitor" [0004]) in order for the players to recognize which game characters are controlled by which game controller so that the game can be enjoyed by a plurality of players [0005].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the video game machine, controller hub and method as taught by Tanaka into the teachings of Stiles in order for the players to recognize which game characters are controlled by which game controller so that the game can be enjoyed by a plurality of players.

In Reference to Claims 2 and 12

Stiles discloses how the reduction scheme specifies a mapping of said control input sets onto said at least one reduced control input set (Figs. 1 and 2 and Col. 4 Lines 18-25 for the Yaw command and is "equally applicable to flight control Pitch, roll and Lift axis modules." Col. 4 Lines 24-26).

In Reference to Claims 3 and 13

Stiles discloses a one to one mapping wherein said controller hub is functionally deactivated and said control input sets are provided unaltered to said video game console (Fig. 3 and "When the switch 230 is activated to the true or T position, the co-pilot yaw axis command on line 234 is first applied to the priority function 222 wherein

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the reduction in co-pilot authority is determined based on the magnitude of the pilot input." Col. 5 Lines 3-7). Further, if the hub is deactivated and the signals pass through unaltered, Stiles discloses known systems where the signals "cancel each other out." (Col. 2 Line 24).

In Reference to Claims 4 and 14

Stiles discloses means for combining at least two of said at least one control input from said control input sets according to a combination scheme (Fig. 3 and Col. 4 Lines 48-67, Col. 5 Lines 1-67 and Col. 6 Lines 1-39).

In Reference to Claims 5 and 15

Stiles discloses a combination scheme that specifies at least one combination procedure applied to at least two of said at least one control input, each of which corresponds across said control input sets; said combination procedure producing a single control input within said at least one reduced control input set (Fig. 3 and Col. 4 Lines 48-67, Col. 5 Lines 1-67 and Col. 6 Lines 1-39).

In Reference to Claims 6 and 16

Stiles discloses the controller wherein said at least one combination procedure is applied to corresponding control input sets in accordance with said reduction scheme (Fig. 3 and Col. 4 Lines 18-26 and Lines 48-67, Col. 5 Lines 1-67 and Col. 6 Lines 1-39).

In Reference to Claims 7 and 17

Stiles discloses the controller wherein said at least one combination procedure is based upon a vote (Stiles discloses known systems wherein "one pilot can override the other" Col. 1 Lines 25-26), a selection ("The priority detector function determines the amount of priority given to a co-pilot yaw axis command signals in relation to pilot yaw axis command signals..." Col. 4 Lines 42-46), and an averaging calculation ("co-pilot controls are 'faded-in' or 'washed-in' Col. 2 Lines 3-4).

In Reference to Claims 8 and 18

Stiles discloses a system substantially equivalent to applicant's claimed invention. However, Stiles fails to disclose wherein said on-screen entity comprises any of: a vehicle, a character, and a team.

Tanaka teaches of controlling on screen characters ([0004]) where the vehicle and team are obvious equivalents ("matters controlled by the controller are not limited to the game characters" [0006]) in order to provide a video game that can be enjoyed by a plurality of players ([0004]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the in-screen entities as taught by Tanaka into the teachings of Stiles in order to provide a video game that can be enjoyed by a plurality of players.

In Reference to Claims 9, 10, 19, and 20

Stiles discloses said reduction scheme and combination scheme that are specified by a user of said video game console through a user interface (Stiles discloses a reduction and combination scheme whereby the "magnitude of the pilot input control signals is monitored" relative to a first and a second threshold value so as to attenuate the signal of the co-pilot controls (Col. 2 Lines 40-52 and Lines 67-68 and col. 3 Lines 1-10; system is capable of applying said magnitude of pilot input control to a YAW, Pitch, Roll, and Lift signals or inherently, any combination thereof through collective stick 26 in fig. 1).

Response to Arguments

4. Applicant's arguments on Pages 6-7 (Arguments/Remarks dated June 14, 2007) with respect to claims 1-20 regarding Fabre being directed to a pilot-copilot system, display console, and on-screen entity have been considered but are moot in view of the new ground(s) of rejection.

5. Applicant's arguments on Pages 6-7 with respect to claims 1-20 wherein Fabre is only concerned with a single control signal and a reduction in the number of control inputs, where applicant has amended to recite that the control input sets are "comprising a plurality of control inputs" that are reduced. The Argument has been considered but is not persuasive. Fabre discloses in Fig. 4, a plurality of input sets (e.g. VCPQ/VCPP and VFOQ/VFOP) which are reduced to sets P and R, respectively.

6. Applicant's arguments on Pages 7-8 (Arguments/Remarks dated June 14, 2007) with respect to claims 3, 13, 9, 10, 19, and 20 regarding passing of the control input sets through the system unaltered and letting the user define the specific reduction and combination scheme have been considered but are moot in view of the new grounds of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and is disclosed on the attached Notice of References Cited.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. D'Agostino whose telephone number is (571) 270-1992. The examiner can be reached on Monday - Friday, 7:30 a.m. - 5:00 p.m..

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10 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hotaling can be reached on (571) 272-4437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JOHN M. HOTALING, II
PRIMARY EXAMINER

Paul A. D'Agostino
Examiner
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